

## **Colorado River Basin Salinity Control Project - Title I**

**LOCATION:** This project is located in southwestern Arizona in Yuma County and southeastern California in Imperial County.

**DESCRIPTION/JUSTIFICATION:** The project activities include maintaining the Yuma Desalting Plant; maintaining the U.S. Bypass Drain, the Mexico Bypass Drain; and ensuring desalting/replacement obligations are minimized and Mexican Treaty salinity requirements are maintained.

The project provides for the enhancement and protection of the quality of water available in the Colorado River for the United States and the Republic of Mexico and to comply with the requirements of Minute 242 approved August 30, 1973, under the 1944 Treaty with Mexico. In executing the plan to reduce the quantity and improve the quality of Wellton-Mohawk Division drainage so the majority of it can be credited toward treaty deliveries, several measures were implemented: (1) construction of the Yuma Desalting Plant; (2) construction of the bypass drain in the United States and Mexico; (3) implementation of the Wellton-Mohawk Irrigation Efficiency Improvement Program; (4) Wellton-Mohawk acreage reduction; (5) Painted Rock Reservoir land acquisition and operation schedule modification; (6) construction of the Main Outlet Drain Extension Siphon; and (7) fish and wildlife mitigation measures.

**AUTHORIZATION:** P.L. 93-320, Colorado River Basin Salinity Control Act, Title I, June 24, 1974, and P.L. 96-336, Amend Colorado River Basin Salinity Control Act, September 4, 1980.

**COMPLETION DATA:** As of September 30, 2000, the project was 92 percent complete. The Protective and Regulatory Pumping Unit and associated features were completed in FY 1979; 14 wells and associated features on the Protective and Regulatory Pumping Unit were completed in FY 1979; the Coachella Canal Unit Replacement was completed in FY 1984; an additional 7 wells and associated features were completed in FY 1984; and the remainder of the wells and associated features will be completed as required. The Desalting Complex Unit was completed in FY 1991 and test operation of the main facility was completed and production of desalting water began in FY 1992. In FY 1993, the Yuma Desalting Plant was placed in ready reserve status and will continue to operate at this level for the foreseeable future. Construction of the remaining features associated with the Yuma Desalting Complex Unit will be completed as necessary. A new completion date will be determined when the plant is placed in operation.

### SUMMARIZED FINANCIAL DATA

#### Program Financial Data

Activity	FY2001	FY 2002
Water and Energy Management and Development	\$1,116,726	\$725,000
Facility Operations	265,000	291,000
Facility Maintenance and Rehabilitation	10,150,000	9,164,000
Total Program	\$11,531,726	\$10,180,000
Prior Year Funds	(48,726)	0
Non-Federal	(100,000)	(100,000)
Enacted	\$11,383,000	\$10,080,000
Underfinancing	(2,254,000)	0
Rescission (P.L. 106-554)	(20,000)	0
Total Reclamation Allotment	\$9,109,000	\$10,080,000

#### Total Construction Costs to be Allocated

	Total Estimated Cost	Total to 9/30/00	FY2001	FY 2002	Balance to Complete
Reclamation	\$449,596,000	\$410,171,936	\$866,000	\$725,000	\$37,833,064
Adjustments	715,000	715,000	0	0	0
Total	\$450,311,000	\$410,886,936	\$866,000	\$725,000	\$37,833,064

#### Construction Cost Allocation and Methodology

Allocation	FY 2001	FY 2002
Irrigation	\$45,938,000	\$45,938,000
Mexican Treaty	406,191,000	404,209,000
Other <sup>1/</sup>	164,000	164,000
Total	\$452,293,000	\$450,311,000

<sup>1/</sup> Nonreimbursable preauthorization investigations costs (P.L. 92-149).

**METHODOLOGY:** The methodology of cost allocation has not been revised. The Mexican Treaty allocation decreased \$1,982,000 primarily due to revised estimates for research activities (-\$2,344,000); offset by increases due to indexing of the regulatory pumping unit estimates (\$362,000)

**APPROPRIATION CEILING:** Appropriations authorized are \$528,331,000 (October 2001). The comparable estimated total Federal obligation is \$450,311,000. This authorization is adequate to cover the project as currently proposed.

**OTHER INFORMATION:** The House of Representatives Report accompanying the FY 1995 Energy and Water Development Appropriations bill directed Reclamation to maintain the Yuma Desalting Plant in such a manner as to be capable of operating at one-third capacity with a one-year notice. The Secretary of the Interior has directed Reclamation to work with the Colorado River Basin States and Mexico to identify a long-term, low-cost alternative to operating the plant. Additionally, the Senate Report accompanying the FY 2000 Energy and Water Development Appropriations bill directed the Department to provide a report to the Appropriations Committee on alternatives to meeting Treaty requirements without the Desalting Plant, and actions the Bureau of Reclamation can take to reduce the high annual operation and maintenance costs. This report was scheduled to be completed in the summer of 2000. The report has been delayed until the Colorado River Basin States can be consulted about alternatives to the operation of the Desalting Plant. The report is expected to be complete by the end of 2001.

**WORK PROPOSED FOR FY 2002:**

**Water and Energy Management and Development** - Continues water quality research at the Yuma Desalting Plant's Water Quality Improvement Center and at the Denver Technical Services Center. The goals of this research are to identify causes of membrane failure; find methods to reduce membrane fouling and degradation; improve pretreatment and disinfection; and find optimum cleaning and storage methods. This research will reduce the operation and maintenance costs of the Yuma Desalting Plant and be transferable technology to private industry. **\$725,000**

**Facility Operations** - Continues evaluating and estimating the salinities of flows arriving at Imperial Dam and flows going to Mexico. Continues efforts to ensure the Wellton-Mohawk Irrigation and Drainage District drainage return flows are minimized thereby reducing the Federal desalting and/or replacement obligation. Continues water sampling on the Colorado River, Gila River, open drains, and drainage wells. Continues salinity accounting at Northern International Boundary and Imperial Dam. The annual Wellton-Mohawk Irrigation and Drainage District water budget, which analyzes irrigation efficiency, drainage return flows, diversions, and consumptive use of water, will be prepared. **291,000**

**Facilities Maintenance and Rehabilitation** - Continues maintenance of essential Yuma Desalting Plant infrastructure and associated facilities. Maintains the United States and Mexico sections of the Bypass Drain, the Protective and Regulatory Pumping Unit, and mitigation features constructed under Title I authority. Continues maintenance as-built drawings of the plant. Continues pilot testing of water treatment systems for entities other than Reclamation on a cost shared or cost reimbursed basis at the Yuma Water Quality Improvement Center. Continues cold storage of two-thirds of existing membrane elements which would allow the Yuma Desalting Plant to operate at one-third of the plant's capacity. The other one-third of membranes are stored without cost due to research efforts.

	8,364,000
Non-Federal: Water Users - Yuma Water Quality Improvement Center	(100,000)
	8,264,000

Continues ongoing Protective and Regulatory Pumping Unit well field maintenance required due to its size and the hardness of the water pumped. Funding is requested to purchase replacement pumps, cables, and column pipe couplings. **500,000**



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Continues Yuma Desalting Plant modifications to correct design and/or construction problems. These corrections enhance the efficiency and reliability of the system thus reducing maintenance and in some cases operational costs. Replace or repair the clearwell Ph control system (\$200,000) and the slaker building lime grit removal system (\$100,000). 300,000

Subtotal, Facilities Maintenance and Rehabilitation **9,064,000**

**Reclamation Request** **\$10,080,000**

**SEE APPENDIX FOR:** Benefit Cost Ratios as of October 1, 2001  
Project Repayment for FY 2002  
Status of Repayment Contracts  
Status of NEPA Compliance  
Summary of Irrigation Investments